

(FILE 'HOME' ENTERED AT 13:07:04 ON 15 MAR 2007)

FILE 'REGISTRY' ENTERED AT 13:07:30 ON 15 MAR 2007

L1 STRUCTURE UPLOADED

L2 1 S L1

L3 28 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 13:08:53 ON 15 MAR 2007

L4 35 S L3

L5 4 S L4 AND (CANCER OR TUMOR OR NEOPLAS? OR PROSTATE OR COLON OR B

FILE 'USPATFULL' ENTERED AT 13:10:23 ON 15 MAR 2007

L6 23 S L3

L7 11 S L6 AND (CANCER OR TUMOR OR NEOPLAS? OR PROSTATE OR COLON OR B

L8 0 S L7 NOT PY>2001

L9 2 S L7 NOT PY>2003

=> file registry  
COST IN U.S. DOLLARS

SINCE FILE ENTRY	TOTAL SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 13:07:30 ON 15 MAR 2007  
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STRUCTURE FILE UPDATES: 14 MAR 2007 HIGHEST RN 926494-79-3  
DICTIONARY FILE UPDATES: 14 MAR 2007 HIGHEST RN 926494-79-3

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TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

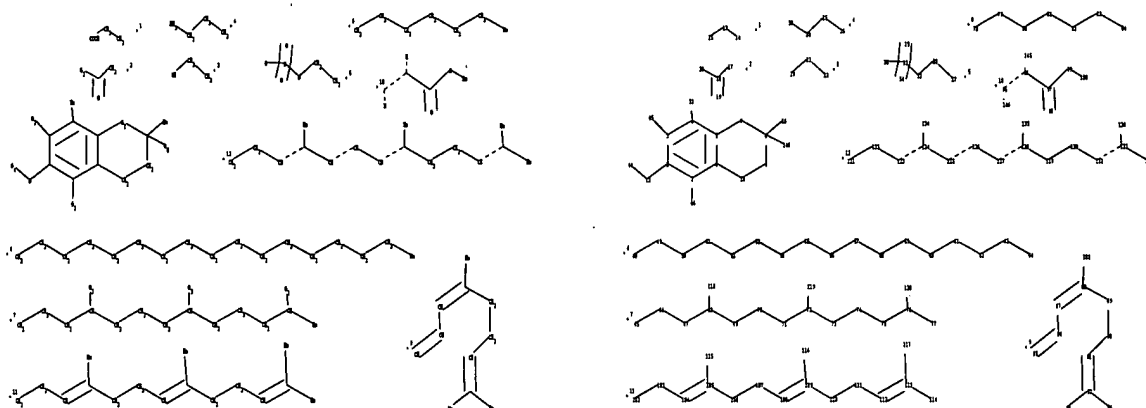
Please note that search-term pricing does apply when  
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REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10644418terpenechroman.str



chain nodes :

12 13 14 15 16 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33  
 34 35 36 44 45 46 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62  
 63 64 65  
 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86  
 87 88 89 90  
 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108  
 109 110 111 112  
 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129  
 130 131 132

133 134 135 136 145 146 148

ring nodes :

1 2 3 4 5 6 7 8 9 10

chain bonds :

1-46 2-12 3-45 4-31 8-16 8-148 12-44 13-14 13-15 17-18 18-19 18-20 22-23  
 23-29 24-25 24-30 25-26 27-28 28-32 32-33 33-34 33-35 33-36 48-49 49-50  
 50-51 51-52  
 52-53 53-54 54-55 55-56 56-57 57-58 58-59 59-60 60-61 61-62 62-63 63-64  
 65-66 66-67  
 67-68 68-69 68-118 69-70 70-71 71-72 72-73 72-119 73-74 74-75 75-76  
 76-77 76-120 78-79  
 79-80 80-81 81-82 82-83 83-84 85-86 86-87 87-88 88-89 88-101 89-90 90-91  
 91-92 92-93  
 92-94 95-96 95-146 96-97 96-145 97-98 97-99 99-100 102-103 103-104  
 104-105 105-106  
 105-115 106-107 107-108 108-109 109-110 109-116 110-111 111-112 112-113  
 113-114 113-117

121-122 122-123 123-124 124-125 124-134 125-126 126-127 127-128 128-129  
 128-135 129-130  
 130-131 131-132 132-133 132-136  
 ring bonds :  
 1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10  
 exact/norm bonds :  
 1-46 2-12 3-45 4-31 5-7 6-10 7-8 8-9 8-16 8-148 9-10 12-44 13-14 13-15  
 17-18 18-19 18-20 22-23 23-29 24-25 24-30 25-26 27-28 28-32 32-33 33-34  
 33-35 33-36  
 48-49 49-50 50-51 51-52 52-53 53-54 54-55 55-56 56-57 57-58 58-59 59-60  
 60-61 61-62  
 62-63 63-64 65-66 66-67 67-68 68-69 68-118 69-70 70-71 71-72 72-73  
 72-119 73-74 74-75  
 75-76 76-77 76-120 78-79 79-80 80-81 81-82 82-83 83-84 85-86 86-87 87-88  
 88-89 88-101  
 89-90 90-91 91-92 92-93 92-94 95-96 95-146 96-97 96-145 97-98 97-99  
 99-100 102-103  
 103-104 104-105 105-106 105-115 106-107 107-108 108-109 109-110 109-116  
 110-111 111-112  
 112-113 113-114 113-117 121-122 122-123 123-124 124-125 124-134 125-126  
 126-127 127-128  
 128-129 128-135 129-130 130-131 131-132 132-133 132-136  
 normalized bonds :  
 1-2 1-6 2-3 3-4 4-5 5-6

G1:O,N

G2:MeO,N

G3:H,CH3

G4:[\*1],[\*2],[\*3],[\*4],[\*5]

G5:CH3,COOH,[\*6],[\*7],[\*8],[\*9],[\*10],[\*11],[\*12]

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS  
 20:CLASS 22:CLASS  
 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS  
 31:CLASS 32:CLASS  
 33:CLASS 34:CLASS 35:CLASS 36:CLASS 44:CLASS 45:CLASS 46:CLASS 48:CLASS  
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 126:CLASS 127:CLASS  
 128:CLASS 129:CLASS 130:CLASS 131:CLASS 132:CLASS 133:CLASS 134:CLASS  
 135:CLASS 136:CLASS  
 145:CLASS 146:CLASS 148:CLASS

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 13:08:17 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 270 TO ITERATE

100.0% PROCESSED 270 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 4415 TO 6385

PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

=> d l2 scan

L2 1 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN

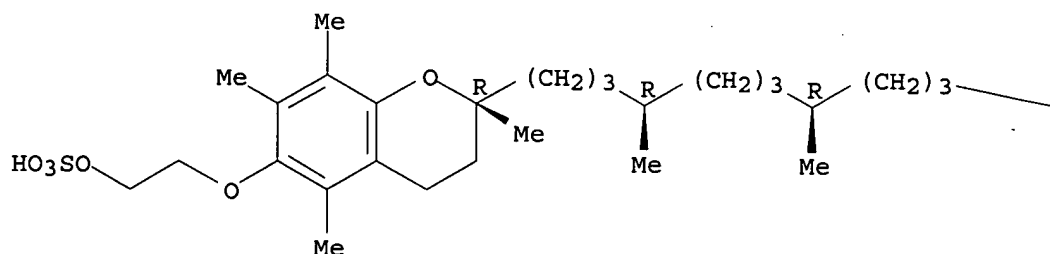
IN Ethanol, 2-[[[(2R)-3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-2H-1-benzopyran-6-yl]oxy]-, hydrogen sulfate, compd. with N,N-diethylethanamine (1:1) (9CI)

MF C31 H54 O6 S . C6 H15 N

CM 1

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

—CHMe<sub>2</sub>

```
=> s ll sss full
FULL SEARCH INITIATED 13:08:33 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      5764 TO ITERATE
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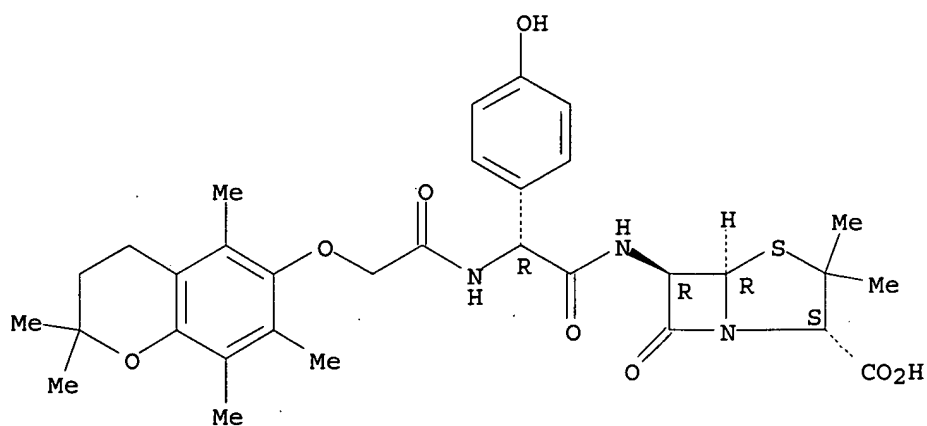
L3 28 SEA SSS FUL L1

L3 28 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN  
IN Acetamide, 2-[[[(2R)-3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-2H-1-benzopyran-6-yl]oxy]- (9CI)  
MF C31 H53 N O3

CN(C(=O)COc1cc(C)c2c(c1)OC(R)(C)CC(R)(C)CCC(R)(C)CCC(R)(C)CC

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):4

Absolute stereochemistry.

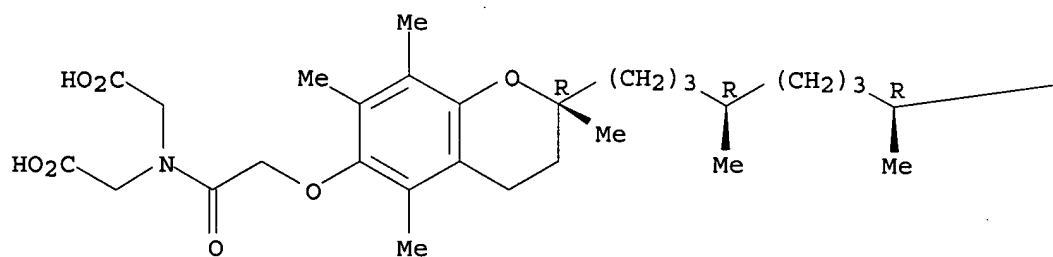


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

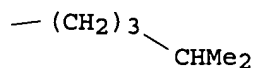
L3 28 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN  
 IN Glycine, N-(carboxymethyl)-N-[[[(2R)-3,4-dihydro-2,5,7,8-tetramethyl-2-  
 [(4R,8R)-4,8,12-trimethyltridecyl]-2H-1-benzopyran-6-yl]oxy]acetyl]- (9CI)  
 MF C35 H57 N O7

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L3 28 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN  
 IN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[[[(3,4-dihydro-  
 2,2,7,8-tetramethyl-2H-1-benzopyran-6-yl)oxy]acetyl]amino]phenylacetyl]ami  
 no]-3,3-dimethyl-7-oxo-, [2S-[2 $\alpha$ ,5 $\alpha$ ,6 $\beta$ (S\*)]]- (9CI)  
 MF C31 H37 N3 O7 S

Absolute stereochemistry.



Absolute stereochemistry.

Chemical structure of a substituted benzodioxane derivative. The benzene ring has methyl groups at positions 2, 4, and 6, and a 3-sulfopropoxy group at position 3. The dioxane ring has a methyl group at position 4 and a substituent R at position 5. The substituent R is a branched alkyl chain:  $(CH_2)_3-CH(Me)-CH_2-CH(Me)-CH_2-CH(Me)-CH_2-$ .

$$-\text{CHMe}_2$$
$$\begin{array}{c} \text{Et} \\ | \\ \text{Et}-\text{N}-\text{Et} \end{array}$$

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0



=> file caplus  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
172.55	172.76

FILE 'CAPLUS' ENTERED AT 13:08:53 ON 15 MAR 2007  
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FILE COVERS 1907 - 15 Mar 2007 VOL 146 ISS 12  
FILE LAST UPDATED: 14 Mar 2007 (20070314/ED)

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=> s l3  
L4

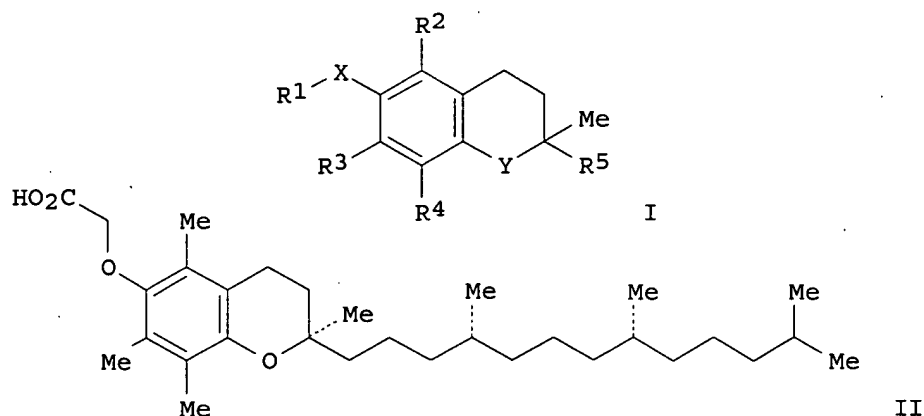
35 L3

=> s l4 and (cancer or tumor or neoplas? or prostate or colon or breast)  
308833 CANCER  
401123 TUMOR  
484846 NEOPLAS?  
50886 PROSTATE  
60156 COLON  
75237 BREAST

L5 4 L4 AND (CANCER OR TUMOR OR NEOPLAS? OR PROSTATE OR COLON OR BREAST)

=> d l5 ti abs bib

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Preparation of tocopherols, tocotrienols, other chroman and side chain derivatives for therapeutic use in the prevention and treatment of cancer  
GI



AB Chroman derivs., such as I [X = O, S, NR<sub>6</sub>; Y = O, NR<sub>6</sub>; R<sub>1</sub> = carboxyalkyl, carboxyalkenyl, etc.; R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> = H, Me, alkyl, etc.; R<sub>5</sub> = alkyl, alkenyl, etc.; R<sub>6</sub> = H, alkyl], were prepared for use in antitumor pharmaceutical compns. for inducing apoptosis in a cell, particularly a cancer cell. Thus,  $\alpha$ -tocopherol derivative II was prepared in 88% yield by a reaction of BrCH<sub>2</sub>CO<sub>2</sub>Me with (R,R,R)- $\alpha$ -tocopherol using NaOH in DMF. The prepared chromans were assayed for growth inhibitory and apoptotic activity against a variety of human cancer cell lines.

AN 2004:618733 CAPLUS <<LOGINID::20070315>>

DN 141:174332

TI Preparation of tocopherols, tocotrienols, other chroman and side chain derivatives for therapeutic use in the prevention and treatment of cancer

IN Sanders, Bob G.; Kline, Kimberly; Hurley, Laurence; Gardner, Robb; Menchaca, Marla; Yu, Weiping; Ramanan, Puthucode N.; Liu, Shenquan; Israel, Karen

PA Research Development Foundation, USA

SO U.S., 48 pp., Cont.-in-part of U.S. Ser. No. 404,001.  
CODEN: USXXAM

DT Patent

LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6770672	B1	20040803	US 2000-502592	20000211
	US 6417223	B1	20020709	US 1999-404001	19990923
	CA 2399802	A1	20010816	CA 2001-2399802	20010209
	WO 2001058889	A1	20010816	WO 2001-US4168	20010209
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1254130	A1	20021106	EP 2001-909008		20010209
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004504268	T	20040212	JP 2001-558439		20010209
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CN 1529701	A	20040915	CN 2001-807536		20010209
RU 2263672	C2	20051110	RU 2002-124135		20010209
US 2002107207	A1	20020808	US 2001-8066		20011105

US 6703384	B2	20040309		
US 2004235938	A1	20041125	US 2003-644418	20030820
US 2004097431	A1	20040520	US 2003-695275	20031028
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US 1999-404001	A2	19990923		
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US 2000-502592	A	20000211		
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OS MARPAT 141:174332

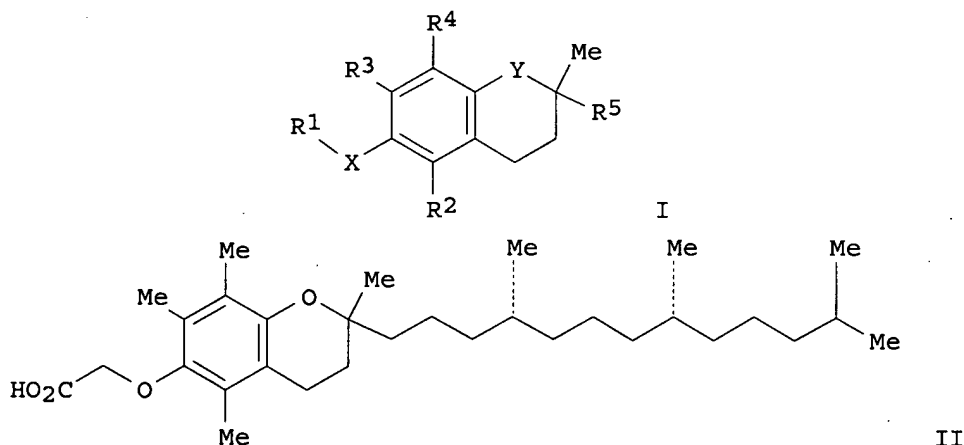
RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 15 2-4 ti abs bib

L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

TI Preparation of tocopherols, tocotrienols, other chromans and side chain  
derivs. as potential antiproliferative and proapoptotic agents

GI



AB Derivs. of tocopherol, tocotrienol and other chromans of formula I (X and Y independently are oxygen, nitrogen or sulfur; when Y is nitrogen, nitrogen is substituted with R6 and R6 = H or Me; R1 = alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxylic acid, carboxylate, carboxamide, ester, thioamide, thiolacid, thiol ester, saccharide, alkoxy-linked saccharide, amine, sulfonate, sulfate, phosphate, alc., ethers or nitrites; R2, R3 = hydrogen or R4; R4 = Me, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzyl ester, saccharide or amine; and R5 = alkenyl) were prepared as antiproliferative and proapoptotic agents for the potential treatment of cell proliferative diseases. Thus,  $\alpha$ -tocopherol was treated with Me bromoacetate and NaOH in N, N-dimethylformamide to give II. II showed effective growth inhibitory properties (apoptotic inducing) in a wide variety of human cancer cell lines, including breast, prostate, cervical, and ovarian cancers with EC50 values ranging from 1-20  $\mu\text{g/mL}$ .

AN 2002:595501 CAPLUS <<LOGINID::20070315>>

DN 137:140656

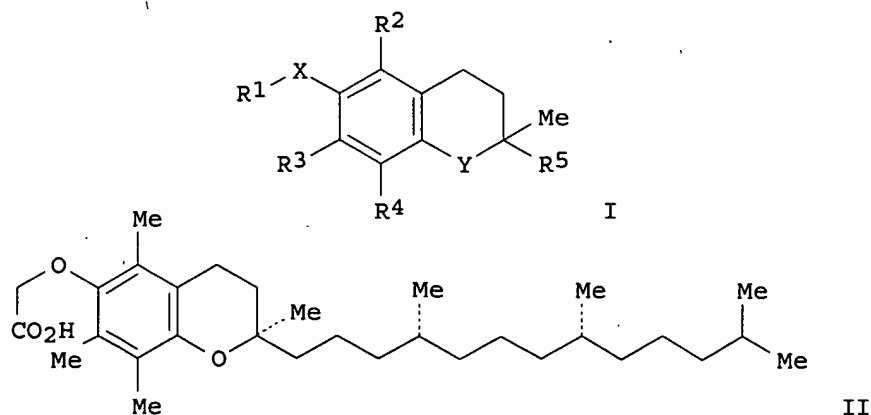
TI Preparation of tocopherols, tocotrienols, other chromans and side chain  
derivs. as potential antiproliferative and proapoptotic agents

IN Sanders, Bob G.; Kline, Kimberly; Yu, Weiping

PA Research Development Foundation, USA  
 SO U.S. Pat. Appl. Publ., 44 pp., Cont.-in-part of U. S. Ser. No. 502,592.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002107207	A1	20020808	US 2001-8066	20011105
	US 6703384	B2	20040309		
	US 6417223	B1	20020709	US 1999-404001	19990923
	CN 1706838	A	20051214	CN 2005-10003855	19990923
	US 6770672	B1	20040803	US 2000-502592	20000211
	US 2002156024	A1	20021024	US 2002-122019	20020412
	US 6645998	B2	20031111		
	WO 2003039461	A2	20030515	WO 2002-US35147	20021101
	WO 2003039461	A3	20031113		
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	AU 2002353971	A1	20030519	AU 2002-353971	20021101
	US 2004097431	A1	20040520	US 2003-695275	20031028
PRAI	US 1998-101542P	P	19980923		
	US 1999-404001	A2	19990923		
	US 2000-502592	A2	20000211		
	US 1998-101543P	P	19980923		
	CN 1999-812829	A3	19990923		
	US 2001-8066	A	20011105		
	WO 2002-US35147	W	20021101		
OS	MARPAT 137:140656				

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Preparation of tocopherols, tocotrienols, other chroman and side chain derivatives that induce cell apoptosis for therapeutic use as antiproliferative agents  
 GI



AB Tocopherol analogs, such as I [X = O, NH, S; Y = O, NH, S; R1 = alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxyl, carboxamide, thiocarboxyl, etc.; R2, R3, R4 = H, Me, benzyl, carboxyl, carboxamide, amine, saccharide; R5 = alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxyl, carboxamide], were prepared for pharmaceutical use as antiproliferative agents which induce cell apoptosis for treatment of cancers and diseases involving cell proliferation, such as autoimmune diseases, psoriasis, etc.. Thus, (R,R,R)- $\alpha$ -tocopherol derivative II was prepared in 88% yield by condensation of (R,R,R)- $\alpha$ -tocopherol and BrCH<sub>2</sub>CO<sub>2</sub>Me in DMF using NaOH followed by hydrolysis with 5 N HCl. The prepared tocopherol analogs were tested for their ability to induce apoptosis in a number of cancer cell lines, such as breast, cervical, colon, prostate, etc.

AN 2001:597976 CAPLUS <<LOGINID::20070315>>

DN 135:166941

TI Preparation of tocopherols, tocotrienols, other chroman and side chain derivatives that induce cell apoptosis for therapeutic use as antiproliferative agents

IN Sanders, Robert G.; Kline, Kimberly; Hurley, Laurence; Gardner, Robb; Menchaca, Marla; Yu, Weiping; Ramanah, Puthucode N.; Liu, Shenquan; Israel, Karen

PA Research Development Foundation, USA

SO PCT Int. Appl., 120 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 4

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PI	WO 2001058889	A1	20010816	WO 2001-US4168	20010209
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OS MARPAT 135:166941

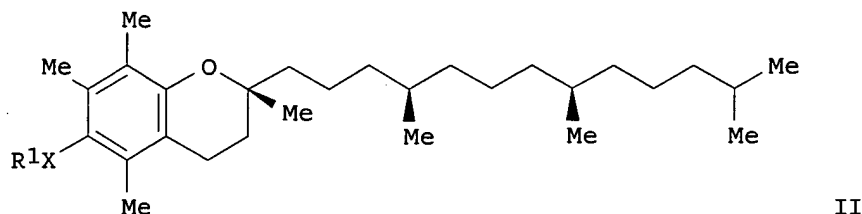
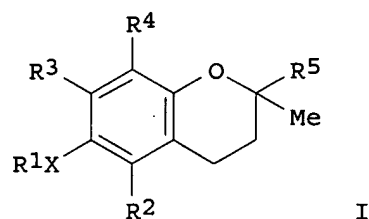
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

TI Preparation of tocopherols, tocotrienols, other chroman and side chain derivatives for use as antitumor agents and for inducing cell apoptosis

GI



AB Chromans I [R1 = alkyl, alkenyl, alkynyl, aryl, herteroaryl, carboxyl, carboxamide, thioamide, saccharide, amine, sulfate, phosphate, etc.; R2, R3, R4 = H, Me, benzylcarboxylate, saccharide, amino, etc.; R5 = alkyl, alkenyl, alkynyl, aryl, herteroaryl, carboxyl, carboxamide; X = O, NH, S] were prepared for pharmaceutical use as antitumor agents and cell apoptosis inducing agents. Thus, tocopherol derivative II (R1 = CH<sub>2</sub>CO<sub>2</sub>H, X = O) was prepared in 88% yield via O-alkylation of (+)- $\alpha$ -tocopherol with Me bromoacetate. The prepared chromans were tested for cell apoptosis activity against a variety of cancer cell lines.

AN 2000:209907 CAPLUS <<LOGINID::20070315>>

DN 132:237223

TI Preparation of tocopherols, tocotrienols, other chroman and side chain derivatives for use as antitumor agents and for inducing cell apoptosis

IN Kline, Kimberly; Sanders, Bob G.; Hurley, Laurence; Gardner, Robb; Menchaca, Marla; Yu, Weiping; Ramanan, Puthucode N.; Liu, Shenquan; Israel, Karen

PA Research Development Foundation, USA

SO PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000016772	A1	20000330	WO 1999-US21778	19990923
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2345079	A1	20000330	CA 1999-2345079	19990923
	AU 9961553	A1	20000410	AU 1999-61553	19990923
	AU 757013	B2	20030130		
	EP 1115398	A1	20010718	EP 1999-948352	19990923
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CN 1325303	A	20011205	CN 1999-812829	19990923
	JP 2002526446	T	20020820	JP 2000-573733	19990923
	NZ 510732	A	20040130	NZ 1999-510732	19990923
	RU 2232758	C2	20040720	RU 2001-111019	19990923
	CN 1706838	A	20051214	CN 2005-10003855	19990923

IL 142082	A	20051218	IL 1999-142082	19990923
TW 592695	B	20040621	TW 1999-88120073	19991117
ZA 2001002057	A	20020319	ZA 2001-2057	20010313
PRAI US 1998-101542P	P	19980923		
CN 1999-812829	A3	19990923		
WO 1999-US21778	W	19990923		

OS MARPAT 132:237223

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file uspatfull

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	24.79	197.55
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-3.12	-3.12

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HIGHEST GRANTED PATENT NUMBER: US7191469  
HIGHEST APPLICATION PUBLICATION NUMBER: US2007056070  
CA INDEXING IS CURRENT THROUGH 13 Mar 2007 (20070313/UPCA)  
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REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2006  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2006

=> s 13

L6 23 L3

=> s 16 and (cancer or tumor or neoplas? or prostate or colon or breast)

128026 CANCER  
100882 TUMOR  
36619 NEOPLAS?  
40358 PROSTATE  
48313 COLON  
60307 BREAST

L7 11 L6 AND (CANCER OR TUMOR OR NEOPLAS? OR PROSTATE OR COLON OR BREAST)

=> d 17 1-11 ti

L7 ANSWER 1 OF 11 USPATFULL on STN

TI Pharmaceutical compositions with synchronized solubilizer release

L7 ANSWER 2 OF 11 USPATFULL on STN

TI Pharmaceutical compositions with synchronized solubilizer release

L7 ANSWER 3 OF 11 USPATFULL on STN

TI Pharmaceutical compositions with synchronized solubilizer release

L7 ANSWER 4 OF 11 USPATFULL on STN

TI Compositions for oral administration of camptothecin and its analogs

L7 ANSWER 5 OF 11 USPATFULL on STN

TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof

L7 ANSWER 6 OF 11 USPATFULL on STN  
 TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof

L7 ANSWER 7 OF 11 USPATFULL on STN  
 TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof

L7 ANSWER 8 OF 11 USPATFULL on STN  
 TI Inhalation compositions, methods of use thereof, and process for preparation of same

L7 ANSWER 9 OF 11 USPATFULL on STN  
 TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof

L7 ANSWER 10 OF 11 USPATFULL on STN  
 TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof

L7 ANSWER 11 OF 11 USPATFULL on STN  
 TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof

=> s 17 not py>2001  
 1809034 PY>2001  
 L8 0 L7 NOT PY>2001

=> s 17 not py>2003  
 1278672 PY>2003  
 L9 2 L7 NOT PY>2003

=> d 19 1-2 ti abs bib

L9 ANSWER 1 OF 2 USPATFULL on STN  
 TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof  
 AB The present invention provides an antiproliferative compound having the structural formula ##STR1##

wherein X is oxygen, nitrogen or sulfur; R<sup>sup.1</sup> is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxylic acid, carboxylate, carboxamide, ester, thioamide, thiolacid, thiolester, saccharide, alkoxy-linked saccharide, amine, sulfonate, sulfate, phosphate, alcohol, ethers and nitriles; R<sup>sup.2</sup> is hydrogen, methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; R<sup>sup.3</sup> is selected from the group consisting of hydrogen, methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; R<sup>sup.4</sup> is of methyl, benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester, saccharide and amine; and R<sup>sup.5</sup> is alkyl, alkenyl, alkynyl, aryl, heteroaryl, carboxyl, amide and ester. Also provided is a method for inducing apoptosis in a cell comprising administering a composition comprising a compound.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2002:280579 USPATFULL <<LOGINID::20070315>>  
 TI Tocopherols, tocotrienols, other chroman and side chain derivatives and uses thereof  
 IN Sanders, Bob G., Austin, TX, UNITED STATES  
 Kline, Kimberly, Austin, TX, UNITED STATES  
 Hurley, Laurence, Austin, TX, UNITED STATES  
 Gardner, Robb, Austin, TX, UNITED STATES



Menchaca, Marla, Austin, TX, UNITED STATES  
Yu, Weiping, Austin, TX, UNITED STATES  
Ramanan, Puthucode N., Austin, TX, UNITED STATES  
Liu, Shenquan, Austin, TX, UNITED STATES  
Israel, Karen, Austin, TX, UNITED STATES

PA Research Development Foundation (U.S. corporation)  
PI US 2002156024 A1 20021024  
US 6645998 B2 20031111  
AI US 2002-122019 A1 20020412 (10)  
RLI Division of Ser. No. US 1999-404001, filed on 23 Sep 1999, GRANTED, Pat.  
No. US 6417223  
PRAI US 1998-101542P 19980923 (60)  
DT Utility  
FS APPLICATION  
LREP Benjamin Aaron Adler, ADLER & ASSOCIATES, 8011 Candle Lane, Houston, TX,  
77071  
CLMN Number of Claims: 20  
ECL Exemplary Claim: 1  
DRWN 14 Drawing Page(s)  
LN.CNT 2170  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 2 OF 2 USPATFULL on STN  
TI Tocopherols, tocotrienols, other chroman and side chain derivatives and  
uses thereof  
AB The present invention provides an antiproliferative compound having the  
structural formula ##STR1##

wherein X is oxygen, nitrogen or sulfur; R.sup.1 is alkyl, alkenyl,  
alkynyl, aryl, heteroaryl, carboxylic acid, carboxylate, carboxamide,  
ester, thioamide, thiolacid, thiolester, saccharide, alkoxy-linked  
saccharide, amine, sulfonate, sulfate, phosphate, alcohol, ethers and  
nitriles; R.sup.2 is hydrogen, methyl, benzyl carboxylic acid, benzyl  
carboxylate, benzyl carboxamide, benzylester, saccharide and amine;  
R.sup.3 is selected from the group consisting of hydrogen, methyl,  
benzyl carboxylic acid, benzyl carboxylate, benzyl carboxamide,  
benzylester, saccharide and amine; R.sup.4 is of methyl, benzyl  
carboxylic acid, benzyl carboxylate, benzyl carboxamide, benzylester,  
saccharide and amine; and R.sup.5 is alkyl, alkenyl, alkynyl, aryl,  
heteroaryl, carboxyl, amide and ester. Also provided is a method for  
inducing apoptosis in a cell comprising administering a composition  
comprising a compound.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2002:168253 USPATFULL <<LOGINID::20070315>>  
TI Tocopherols, tocotrienols, other chroman and side chain derivatives and  
uses thereof  
IN Sanders, Bob G., Austin, TX, United States  
Kline, Kimberly, Austin, TX, United States  
Hurley, Laurence, Austin, TX, United States  
Gardner, Robb, Austin, TX, United States  
Menchaca, Marla, Austin, TX, United States  
Yu, Weiping, Austin, TX, United States  
Ramanan, Puthucode N., Austin, TX, United States  
Liu, Shenquan, Austin, TX, United States  
Israel, Karen, Austin, TX, United States  
PA Research Development Foundation, Carson City, NV, United States (U.S.  
corporation)  
PI US 6417223 B1 20020709  
AI US 1999-404001 19990923 (9)  
PRAI US 1998-101542P 19980923 (60)  
DT Utility  
FS GRANTED  
EXNAM Primary Examiner: Wilson, James O.; Assistant Examiner: Maier, Leigh C.

LREP Adler, Benjamin Aaron  
CLMN Number of Claims: 3  
ECL Exemplary Claim: 1  
DRWN 14 Drawing Figure(s); 14 Drawing Page(s)  
LN.CNT 1959  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.